

IN THE CLAIMS

1. (currently amended) An apparatus for use during arthroplasty for guiding the resection of a bone having a long axis, comprising:

an anchoring pin for anchoring the apparatus to the bone, said anchoring pin oriented transversely to the long axis of the bone;

a first cam lock having a rod member at a first end and a split bore at a second end for slidably and rotationally receiving the pin, a diameter of the split bore being reduced by actuation of a first cam lever forming part of the first cam lock;

a split tubular member having a bore, a second cam lock located at a first end of the split tubular member, the rod member slidably and rotationally received within the bore at a first end of the split tubular member, a diameter of the split tubular member bore reduced by the actuation of a second cam lever forming part of the second cam lock;

a resection guide for guiding a resection tool on a into contact with the bone, the resection guide having a rod extending from the guide, the rod slidably and rotationally received within a bore at a second end of the split tubular member and the resection guide moveable with respect to the bore in a direction transverse to a central bore axis; and

a computer navigation means coupled to the resection guide;  
and

a third cam lock located at the second end of the split tubular member, a diameter of the split tubular member bore at the second end reduced by the actuation of a third cam lever forming part of the third cam lock, - said apparatus providing six~~three~~ degrees of freedom, wherein said six~~three~~ degrees of freedom include three~~two~~ rotations and three~~one~~ orthogonal translations.

2. (previously presented) The apparatus according to claim 1 wherein said alignment means is continuously adjustable.

Claims 3-5 (cancelled)

6. (currently amended) The apparatus according to claim 1 wherein said six~~three~~ degrees of freedom include flexion-extension, varus-valgus, and proximal-distal.

7. (currently amended) The apparatus according to claim 64 wherein said six~~five~~ degrees of freedom include flexion-extension, varus-valgus, internal-external rotation, proximal-distal, medial-lateral, and anterior-posterior.

8. (previously presented) The apparatus according to claim 1 wherein said guide includes means for attaching a computer navigation tracker.

9. (previously presented) The apparatus according to claim 1 wherein said guide includes a pair of arms having guide holes adapted to guide drilling into the epicondylar region of a femur.

10. (previously presented) The apparatus according to claim 9 wherein said guide includes a T-shaped component and said arms are adapted to be coupled to said T-shaped component.

Claims 11-13 (cancelled)

14. (previously presented) The apparatus according to claim 1 wherein said guide is adapted to guide the drilling of two holes in the distal femur.

Claims 15-42 (cancelled)

43. (currently amended) A set of tools for guiding the resection of a bone during arthroplasty, said set of tools comprising:

a guide bushing defining two spaced apart guide holes, said guide bushing having an orthogonal stem for coupling to an alignment device and a coupling for coupling a tracker to the bushing, the guide bushing moveable in a direction with respect to the stem transverse to a longitudinal axis of the stem;

an alignment device having ~~six at least three~~ degrees of freedom wherein ~~three~~~~two~~ are rotational and ~~three~~ are ~~orthogonal~~~~one~~ ~~is~~ ~~translational~~, said alignment device being adapted to couple to said stem and couple to an anchoring device;

the alignment device comprising:

a first cam lock having a rod member at a first end and a split bore at a second end for slidably and rotationally receiving the anchoring device coupled to a bone, a diameter of the split bore being reduced by actuation of a first cam lever forming part of the first cam lock;

a split tubular member having a bore, a second cam lock located at a first end of the split tubular member, the rod member slidably and rotationally received within the bore at a first end of the split tubular member, a diameter of the split tubular member bore reduced by the actuation of a second cam lever forming part of the second cam lock;

the guide bushing orthogonal stem slidably and rotationally received within a bore at a second end of the split tubular member; and

a third cam lock located at the second end of the split tubular member, a diameter of the split tubular member bore at

the second end reduced by the actuation of a third cam lever forming part of the third cam lock.

44. (previously presented) The set of tools according to claim 43 wherein said guide is adapted to guide the drilling of holes in the distal femur.

45. (previously presented) The set of tools according to claim 43 wherein said alignment device has five degrees of freedom.

46. (previously presented) The set of tools according to claim 43 wherein said guide bushing includes a medial guide bushing and a lateral guide bushing, said medial guide bushing defining two spaced apart holes for drilling into the medial epicondylar region, and said lateral guide bushing defining two spaced apart holes for drilling into the lateral epicondylar region.

47. (previously presented) The apparatus of claim 1 wherein said anchoring means is oriented substantially parallel to the sagital plane.

Claims 48 and 49 (cancelled)

50. (previously presented) The apparatus according to claim 1 further comprising a guide bushing defining two spaced apart guide holes, said guide bushing having an orthogonal stem for coupling to an alignment device and a coupling for coupling a tracker to the bushing.

Claims 51-69 (cancelled)

70. (currently amended) A set of tools for guiding the resection of a bone during arthroplasty, said set of tools comprising:

a resection guide having an orthogonal stem for coupling to an alignment device and a coupling for coupling a tracker to the guidebushing;

an alignment device for aligning the resection guide having three rotational degrees of freedom and three orthogonal translational degrees of freedom comprising:

a first cam lock having a rod member at a first end and a split bore at a second end for slidably and rotationally receiving a pin extending into a bone, a diameter of the split bore being reduced by actuation of a first cam lever forming part of the first cam lock;

a split tubular member having a bore, a second cam lock located at a first end of the split tubular member, the rod member slidably and rotationally received within the bore at a first end of the split tubular member, a diameter of the split tubular member bore reduced by the actuation of a second cam lever forming part of the second cam lock;

the guide bushing orthogonal stem slidably and rotationally received within a bore at a second end of the split tubular member, the guide bushing movable in a direction with respect to the stem transverse to a longitudinal axis of the stem; and

a third cam lock located at the second end of the split tubular member, a diameter of the split tubular member bore at the second end reduced by the actuation of a third cam lever forming part of the third cam lock.

71. (previously presented) The set of tools according to claim 70 wherein said guide is adapted to guide the drilling of holes in the distal femur.

72. (previously presented) The set of tools according to claim 70 wherein said guide is a guide bushing which includes a medial guide bushing and a lateral guide bushing, said medial guide bushing defining two spaced apart holes for drilling into the medial epicondylar region, and said lateral guide bushing defining two spaced apart holes for drilling into the lateral epicondylar region.